DETAILED ACTION

Response to Amendment

Disposition of Claims

I. Claims 1-14, 17-20, and 26-28 remain pending in the application.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

II. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The factual inquiries set forth in *Graham v. John Deere Co.,* 383 U.S. 1,148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

III. Claims 1-5, 6-8, 14, 18, 20, and 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adachi (US 6,877,037 B1) in view of Forlenza et al. (US 6,553,103 B1).

Regarding claim 1 Adachi teaches a system for maintaining data objects distributed on a network (see col. 1, lines 48-50). Adachi teaches each data object being communicated between receiver and a device (see col. 1, lines 48-50). Adachi teaches a network controller coupled to the network and operable to enable data communications including the transmission of a data object update message and a corresponding data object update version sequence number ("OVSN") after receipt of an update request message from a wireless communication device (see col. 1, lines 57-65 and FIG. 1 & FIG. 6). Adachi teaches a data object being capable of different meanings in connection with the receipt of the data object update message (see col. 1, lines 65-67 and col. 2, lines 1-2, updated data and version number relates to data object with different meanings and different values because when the data and version number are updated they have different meanings and values with respect to the previously stored data and version number). Adachi teaches a receiver coupled to the network and operable to enable data communications with the network controller (col. 3, lines 21-24 and FIG. 2). Adachi teaches the receiver including a memory for storing a data object based on the data object update message and the corresponding OVSN (see col. 1, lines 65-67, col. 2, lines 1-2 and FIG. 2). Adachi teaches a processor coupled to the memory and operable to include a last received OVSN in the update request message (see col. 1, lines 51-57). Adachi does not specifically teach macros for communication that are representative of a message for communications, the data object update message being capable of changing the meaning of the macro, and referencing a macro number

corresponding to an associated macro. Forlenza teaches macros for communication that are representative of a message for communications between a receiver and device (see col. 4, lines 45-52 and col. 5, lines 31-34). Forlenza teaches an update message changing the meaning of the macro in connection with communications between the receiver and the device (see col. 5, lines 56-63). Forlenza teaches referencing a macro identifier corresponding to an associated macro (see col. 5, lines 18-21 & 47-50). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include macros for communication that are representative of a message for communications, the data object update message being capable of changing the meaning of the macro, and referencing a macro number corresponding to an associated macro because Adachi teaches each data object being communicated between a receiver and a device (see Adachi, col. 1, lines 48-50) and macros are well known "templates" used in data communications for reducing the amount of data transmitted over the air.

Regarding claim 2 Adachi teaches a memory for storing the data object based on the data object update message transmitted to the receiver and the corresponding OVSN (see col. 1, lines 57-58 and col. 4, lines 43-44 & 48-52). Adachi does not specifically teach a macro for communication. Forlenza teaches macros for communication (see col. 5, lines 31-34). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include a macro for communication because Adachi teaches each data object being communicating between a receiver and a device (see Adachi, col. 1, lines 48-50) and macros are well known "templates" used in data communications for reducing the amount of data transmitted over the air.

Regarding claim 3 Adachi teaches a memory for storing the data object based on the data object update message transmitted to a plurality of receivers that includes the receiver and the corresponding OVSN (see col. 5, lines 59-67). Adachi does not specifically teach a macro for communication. Forlenza teaches macros for communication (see col. 5, lines 31-34). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include a macro for communication because Adachi teaches each data object being communicating between a receiver and a device (see Adachi, col. 1, lines 48-50) and macros are well known "templates" used in data communications for reducing the amount of data transmitted over the air.

Regarding claim 4 Adachi teaches incrementing the corresponding OVSN for each data object update message transmitted to the receiver (see col. 7, lines 25-29).

Regarding claim 5 Adachi and Forlenza teach a device as recited in claim 1 except for wherein the macro for communication represents an encoded message. Forlenza does teach macros for communication (see col. 5, lines 31-34). Forlenza does teach encoding data (see col. 4, lines 17-18). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include wherein the macro for communication represents an encoded message because Adachi teaches each data object being communicating between a receiver and a device (see Adachi, col. 1, lines 48-50) and macros are well known "templates" used in data communications for reducing the amount of data transmitted over the air.

Regarding claim 6 Adachi teaches including the latest received OVSN in a message to the network controller (see col. 1, lines 55-57).

Regarding claim 7 Adachi teaches wherein the receiver is a wireless communication device and the network is a wireless network (see col. 3, lines 3-10).

Regarding claim 8 Adachi and Forlenza teach a device as recited in claim 6 except for decoding a message from a receiver, where the message references macros for communication and includes the receiver's OVSN. Adachi does teach a message that references a data object and includes the receiver's OVSN (see col. 1, lines 61-64). Forlenza does teach a message that references macros for communication (see col. 5, lines 31-34). Forlenza does teach decoding a message from a receiver, where the message references macros for communication (see col. 5, lines 58-61). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the invention adapt to include decoding a message from a receiver, where the message references macros for communication and includes the receiver's OVSN because Adachi teaches each data object being communicating between a receiver and a device (see Adachi, col. 1, lines 48-50) and macros are well known "templates" used in data communications for reducing the amount of data transmitted over the air.

Regarding claim 14 Adachi teaches a receiver for communicating data signals using a network (see col. 3, lines 21-24 and FIG. 2). Adachi teaches a transceiver coupled to the network and operable to receive data communications (see col. 3, lines 21-24 and FIG. 2). Adachi teaches a memory coupled to the transceiver for storing data objects and data object message version sequence numbers (OVSN) transmitted from a network controller in a data communication to the receiver (see col. 1, lines 65-67, col. 2, lines 1-2 and FIG.2). Adachi teaches a data object being capable of different meanings and different values in connection with the receipt of the data object update message (see col. 1, lines 65-67 and col. 2, lines 1-2,

updated data and version number relates to data object with different meanings and different values because when the data and version number are updated they have different meanings and values with respect to the previously stored data and version number). Adachi teaches a processor coupled to the memory and transceiver and operable to include the last received OVSN in a data request message to the network controller (see col. 1, lines 51-57). Adachi does not specifically teach macros for communication; each macro for communication corresponding to a macro number; the data object update message being capable of changing the meaning of the macro; and a receiver being operable to communicate with one or more devices in the network using macro numbers. Forlenza teaches macros for communication, each macro for communication corresponding to a macro number (see col. 5, lines 18-21 & 47-50). Forlenza teaches an update message changing the meaning of the macro in connection with communications between the receiver and the device (see col. 5, lines 56-63). Forlenza teaches being operable to communicate with one or more devices in the network using macro identifiers (see col. 5, lines 56-63). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include macros for communication, each macro for communication corresponding to a macro number and a receiver being operable to communicate with one or more devices in the network using macro numbers because Adachi teaches each data object being communicating between a receiver and a device (see Adachi, col. 1, lines 48-50) and macros are well known "templates" used in data communications for reducing the amount of data transmitted over the air.

Regarding claim 18 Adachi teaches a method of maintaining a distributed object system using a network (see col. 1, lines 48-50). Adachi teaches receiving a data object message with a

data object update version sequence number (OVSN) from a network controller (see col. 1, lines 65-67 and col. 2, lines 1-2). Adachi teaches storing data objects on the data object update message and the OVSN; and transmitting the last received OVSN in a subsequent data update request to a network controller (see col. 1, lines 51-57 and FIG. 2). Adachi teaches a data object being capable of different meanings and different values in connection with the receipt of the data object update message (see col. 1, lines 65-67 and col. 2, lines 1-2, updated data and version number relates to data object with different meanings and different values because when the data and version number are updated they have different meanings and values with respect to the previously stored data and version number). Adachi does not specifically teach macros for communication that are representative of encoded messages and corresponding to a macro number for transmission over a network; and the data object update message being capable of changing the meaning of the macro. Forlenza teaches macros for communication that are representative of an encoded message for communications (see col. 4, lines 45-52 and col. 5, lines 31-34). Forlenza teaches an update message changing the meaning of the macro in connection with communications between the receiver and the device (see col. 5, lines 56-63). Forlenza teaches referencing a macro identifier corresponding to an associated macro (see col. 5, lines 18-21 & 47-50). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include macros for communication that are representative of encoded messages and corresponding to a macro number for transmission over a network; and the data object update message being capable of changing the meaning of the macro because Adachi teaches each data object being communicating between a receiver and a

device (see Adachi, col. 1, lines 48-50) and macros are well known "templates" used in data communications for reducing the amount of data transmitted over the air.

Regarding claim 20 Adachi teaches a method of maintaining a distributed object system using a network (see col. 1, lines 48-50). Adachi teaches receiving a message from a wireless communication device, the message comprising an object update version sequence number (OVSN), the OVSN representing a first state of a data object relating to the wireless communication device (see col. 1, lines 51-57). Adachi teaches comparing the OVSN with a local OVSN, the local OVSN representing a second state of the data object (see col. 1, lines 57-61). Adachi teaches transmitting updated data to the wireless communication device if the OVSN is not equal to the local OVSN (see col. 61-67). Adachi teaches a data object being capable of different meanings and different values in connection with the receipt of the data object update message (see col. 1, lines 65-67 and col. 2, lines 1-2, updated data and version number relates to data object with different meanings and different values because when the data and version number are updated they have different meanings and values with respect to the previously stored data and version number). Adachi does not specifically teach communicating encoded messages using macro numbers; updating data including at least one macro for communications from a MCT using a macro number corresponding to the macro for communication; and the data object update message being capable of changing the meaning of the macro. Forlenza teaches communicating encoded messages using macro identifiers (see col. 5, lines 56-61). Forlenza teaches updating data including at least one macro for communications from a mobile terminal using a macro identifier corresponding to the macro for communication (see col. 5, lines 18-21 & 56-63). Forlenza teaches an update message changing the meaning of

the macro in connection with communications between the receiver and the device (see col. 5, lines 56-63). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include communicating encoded messages using macro numbers; updating data including at least one macro for communications from a MCT using a macro number corresponding to the macro for communication; and the data object update message being capable of changing the meaning of the macro because Adachi teaches each data object being communicating between a receiver and a device (see Adachi, col. 1, lines 48-50) and macros are well known "templates" used in data communications for reducing the amount of data transmitted over the air.

Regarding claim 26 Adachi teaches wherein in the updated data object comprises all data objects (see col. 1, lines 48-50)

Regarding claim 27 Adachi teaches comparing the OVSN with the local OVSN is performed at a network controller (see col. 1, lines 59-62).

Regarding claim 28 Adachi teaches a device as recited in claim 27 and is rejected given the same reasoning as given above.

IV. Claims 9-13, 15-17, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adachi (US 6,877,037 B1) in view Forlenza et al. (US 6,553,103 B1) and Sakakura (US 6,389,423 B1).

Regarding claim 9 Adachi and Forlenza teach a device as recited in claim 4 except for wherein the network controller discards messages from the receiver when the receiver's OVSN is less than the last OVSN sent to the receiver. Sakakura teaches discarding messages from a

receiver when a receiver's data object update sequence number is less than a last data object update sequence number (see col. 9, lines 59-64). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the invention adapt to include wherein the network controller discards messages from the receiver when the receiver's OVSN is less than the last OVSN sent to the receiver because this would allow for a more efficient method of maintaining and controlling data in a network.

Regarding claim 10 Adachi, Forlenza, and Sakakura teach a device as recited in claim 9 wherein each macro for communication has a data object update version sequence number. Adachi does teach a data object having an object update version sequence number (see col. 1, lines 60-63). Forlenza does teach macros for communication (see col. 5, lines 31-34). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include wherein each macro for communication has a data object number version number because Adachi teaches each data object being communicating between a receiver and a device (see Adachi, col. 1, lines 48-50) and macros are well known "templates" used in data communications for reducing the amount of data transmitted over the air.

Regarding claim 11 Adachi, Forlenza, and Sakakura teach a device as recited in claim 10 except for the receiver is further operable to transmit the data object update version sequence number to represent the version of the encoded message in a message to the network controller. Adachi does teach the receiver is further operable to transmit the data object update version sequence number to represent the version of the encoded message in a message to the network controller (see col. 1, lines 51-57). Forlenza does teach encoded data (see col. 4, lines 17-19). It would have been obvious to one of ordinary skill in the art at the time the invention was

made to make the invention adapt to include the receiver is further operable to transmit the data object version number to represent the version of the encoded message in a message to the network controller because this would allow for the transmission of application specific data using manipulated data.

Regarding claim 12 Adachi, Forlenza, and Sakakura teach a device as recited in claim 11 except for decoding the encoded message based on the data object update version sequence number received from the receiver. Forlenza does teach decoding an encoded message based on info from a receiver (see col. 5, lines 56-60). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the invention adapt to include decoding the encoded message based on the data object version number received from the receiver because this would allow for the transmission of application specific data using manipulated data.

Regarding claim 13 Adachi teaches sending data object update messages and corresponding data object update sequence number to the receiver based on an update sequence number included in a message from a receiver (see col. 1, lines 59-65).

Regarding claim 15 Adachi and Forlenza teach a device as recited in claim 14 except for including the largest received OVSN in a message to the network controller. Sakakura teaches including a large received object version sequence number in a message to a network controller (see col. 9, lines 39-44 and col. 14, lines 48-50). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the invention adapt to include including the largest received OVSN in a message to the network controller because this would allow for a more efficient method of maintaining and controlling data in a network.

Regarding claim 16 Adachi, Forlenza, and Sakakura teach a device as recited in claim 11 and is rejected given the same reasoning as above.

Regarding claim 17 Adachi, Forlenza, and Sakakura teach a device as recited in claim 16 except for using the data object to use the data object number in a message to the network controller to identify a version of the encoded messages. Sakakura does teach using a data object number in a message to a network controller to identify a version of date message (see abstract and col. 8, lines 40-48). Forlenza does teach decoding an encoded message (see col. 4, lines 17-19). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the invention adapt to include using the data object to use the data object number in a message to the network controller to identify a version of the encoded messages because this would allow for the transmission of application specific data using manipulated data.

Regarding claim 19 Adachi, Forlenza, and Sakakura teaches a device as recited in claim 11 and is rejected given the same reasoning as above.

Claim Objections

V. Claim 20 is objected to because of the following informalities: It would be more clarifying if the first usage of the acronym "MCT" be spelled out. Appropriate correction is required.

Response to Arguments

VI. Applicant's arguments filed 1/23/2008 have been fully considered but they are not persuasive.

Regarding claims 1, 14, 18, and 20 the combination of Adachi and Forlenza teach a device as claimed.

Forlenza teaches an update message changing the meaning of the macro in connection with communications between the receiver and the device (see col. 5, lines 56-63). This reads on the claimed "wherein the meaning of each macro is capable of being changed by a data object update message". The remarks/arguments made by applicant do not provide any support for the statement that "Forlenza does not teach "wherein the meaning of each macro is capable of being changed by a data object update message".

VII. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

VIII. Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRANDON J. MILLER whose telephone number is (571)272-7869. The examiner can normally be reached on Mon.-Fri. 8:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on 571-272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/George Eng/
Supervisory Patent Examiner, Art Unit 2617

April 11, 2008

/Brandon J Miller/
Examiner, Art Unit 2617